Saxton Ford Bridge
Spanning the Platte River on the Saxton-Easton Road,
3.3 miles west of Easton
Buchanan County
Missouri

HAER No. MO-61

HAER
MO,
11-EATO.V,
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U.S. Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

HAER MO. 11-EATO.V, 1-

HISTORIC AMERICAN ENGINEERING RECORD

Saxton Road Bridge

HAER No. MO-~~58~~ 61

Location:	Spanning the Platte River on the Saxton-Easton Road, 3.3 miles west of Easton Buchanan vicinity, Missouri UTM: Point A: 15.4397735.354039 Point B: 15.4397737.354116 (See page 9 for the location of Points A and B) Latitude: 39 degrees, 43 minutes, 08 seconds Longitude: 94 degrees, 42 minutes, 09 seconds Quad: Agency
Date of Construction:	1925 (County Court Proceedings)
Builder:	Witham Construction Company
Present Owner:	Buchanan County Buchanan County Courthouse St. Joseph, Missouri
Present Use:	Vehicular bridge (to be replaced by a new vehicular bridge). Projected date of removal: 1990
Future Owner:	City of St. Joseph, Missouri
Future Use:	To be re-erected over Black Snake Creek in River Front Park, at the foot of Francis Street in the city of St. Joseph, Missouri
Significance:	The main span of the Saxton Road Bridge is an example of a Parker truss (a Parker truss is a Pratt truss with a polygonal top chord). This type of bridge was used throughout the country from the mid-1800s to the early part of this century.
Compiled by:	Kenneth M. Blair, P.E. Cook, Flatt & Strobel, Engineers, P.A. 6111 S.W. 29th Street Topeka, Kansas 66614

I. HISTORY

A. Securing a Contractor

The Platte River provides a natural barrier between the eastern third of Buchanan County and the trade routes along the Missouri River. A bridge was then needed to connect Easton with Saxton and Joseph on the Missouri River.

Records available from the County Clerk indicate that on August 18, 1924, it was "ordered by the Court that the County Highway Engineer be instructed to advertise for bids for constructing bridge over Platte River on the Saxton-Easton Road in T26N R34W." [1] (There is a discrepancy here, because the actual bridge was built in T57N R34W.)

On September 9, 1924, the "Court awarded contract for erection of Bridge over Platte River on Saxton-Easton Road to Witham Construction Co., their bid being $30,006.24." [2]

B. Construction Chronology

Work progressed after the awarding of the contract, with the first payment of $5,321.73 given to the Witham Construction Company on February 18, 1925. [3] Another payment of $11,315.35 was allowed on March 13, 1925 [4] and, again, on April 7, 1925, a payment of $7,216.87 was allowed. [5]

The final payment was awarded to the Witham Construction on May 1, 1925, in the amount of $4,662.75. [6] The total amount awarded to the company came to $28,516.70, which is $1,489.54 less than the bid amount.

On July 11, 1965, a flood caused washouts at each end of the bridge. The county repaired the west end 20-foot wood jump span and added two 40-foot steel beam approach spans on the east end. The bridge was back in service on November 4, 1965. No mention is made of when the west end 20-foot wood beam jump span was originally constructed.

Other records on the construction of this bridge, such as plans and change orders to contracts, were stored in the Buchanan County Highway Department Building on Route 169 South. This building was flooded in 1984, and the records on this bridge were destroyed. [7]

C. Location

The Saxton Road Bridge is located on the Saxton-Easton Road over the Platte River, approximately 3.3 miles west of Easton in Buchanan County, Missouri (this road now links the southeast part of St. Joseph with the city of Easton). This is an east-west road on the north side of Section 34, Township 57 North, Range 34 West.

II. THE BRIDGE

A. Description

The main span of the Saxton Road Bridge is a 152-foot, 8 panel riveted plate connected Parker through truss. The approach spans are comprised of two steel I beam spans of 40 feet each on the

east end and one 20-foot wood beam span on the west end. The roadway is 1.65 feet wide with a timber deck. The substructure is comprised of steel I beams on the main span and a combination of wood and steel on the approach spans. The total length of the bridge is 252 feet.

Main Span

The main span has diagonal members in tension, with five inside vertical members acting in compression. The two vertical members nearest the ends of the main span are hangers and act in tension. The lower chord is a tension member consisting of four angles riveted together. The diagonal members and two vertical members nearest the ends are two angles riveted to steel spacer plates. The end posts and top chords are comprised of two channels with a solid cover plate and laced underside bracing all riveted together. The five inside vertical members in compression are two channels riveted together by lacing on both sides. The upper sway bracing is fabricated of angles riveted to steel gusset plates that are connected to the top of each panel point and to the end posts.

The floor beams are steel S-shapes with S-shape stringers framing into them. Wood stringers span across the top flange of the steel stringers perpendicular to the centerline of the roadway and timber bridge planks are nailed to the wood stringers. This decking is laid parallel to the center line of the bridge.

Approach Spans

The two approach spans on the east consist of steel S-shapes with timber bridge planks laid perpendicular to the centerline of the bridge.

The approach span on the west consists of wood stringers with timber bridge planks laid perpendicular to the centerline of the bridge.

Handrails

The main span handrail consists of two pipes on each side of the roadway bolted to the truss with U-bolts. The handrails on the approach spans consist of vertical wood posts with two horizontal wood rails on each side of the roadway. A large section of this rail is missing at the northwest quadrant.

Piers

The piers under the main span consist of four steel H-piles per pier that are X-braced with steel angles. The pier under the east jump span is a combination of round timber piles and steel H-piles X-braced with wood beams and steel angles.

Abutments

The existing abutments are mostly buried in roadfill, but evidence indicates they are both constructed of wood and steel.

B. Ownership & Future

The Saxton Road Bridge has been owned and maintained by Buchanan County since its original construction.

The county bridge inventory number is 055003.3. The bridge has light rust on its members and has suffered some minor damage to its bottom chord from drift. The bridge has been slated for replacement due to low load capacity and narrow roadway.

Current plans are for this structure to be matchmarked, dismantled, and given to the city of St. Joseph, Missouri, for re-erection over Black Snake Creek in River Front Park at the foot of Francis Street. The city of St. Joseph, Missouri, will be responsible for reassembling and maintaining the structure in a manner compatible with its historic character.

III. BIOGRAPHICAL MATERIAL

The Saxton Road Bridge has moved goods and services across the Platte River for many years, keeping the northeastern part of Buchanan County connected to St. Joseph and the Missouri River. This bridge provides a route for the farmers of northeastern Buchanan County to bring cattle to the stock yards and produce to the city of St. Joseph. In spite of this link, the city of Easton never grew very large and has a present day (1990) population of approximately 300 people.

No details are known about the Witham Construction Company. No records exist of the construction of the Saxton Road Bridge in the St. Joseph Public Library or with the St. Joseph Historical Society. Any records that might have existed with Buchanan County were destroyed in a flood in 1984.

IV. ENDNOTES

[1] Buchanan County Court Record Book
Book 45, page 407, August 18, 1924

[2] Buchanan County Court Record Book
Book 45, page 434, September 9, 1924

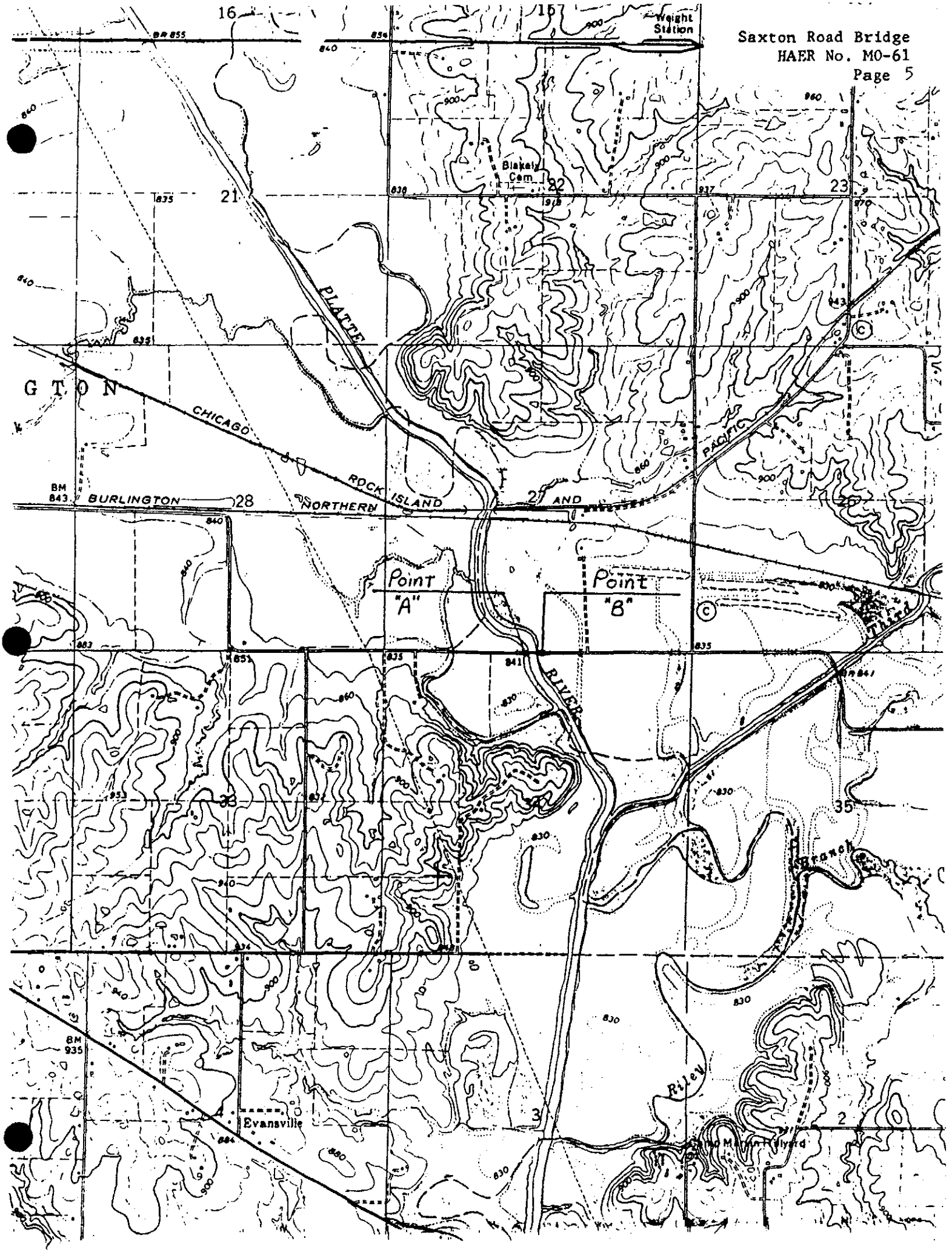
[3] Buchanan County Court Record Book
Book 45, page 17, February 18, 1925

[4] Buchanan County Court Record Book
Book 45, page 45, March 13, 1925

[5] Buchanan County Court Record Book
Book 45, page 69, April 7, 1925

[6] Buchanan County Court Record Book
Book 45, May 1, 1925

[7] Comments from Ben Stanton, current Buchanan County Road Supervisor, 1989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Weight Station
BR 855
Blakely Cem.
22
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21
PLATTE
CHICAGO
ROCK ISLAND
PACIFIC
BM 843
BURLINGTON
NORTHERN
28
27
AND
Point "A"
Point "B"
RIVER
Third
35
Branch
BM 935
Evansville
3
2
Riley
Camp Martin Pollyard